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ABSTRACT

This evaluation focuses on a comprehensive arts and reading enrichment program for socially and economically deprived inner city adolescents who are performing two years below grade level in reading and/or mathematics. One hundred children participated in this six month program considered to be strongly oriented toward reading improvement. A program description is followed by a listing of program objectives, which focus on the improvement of reading and reading skills through motivation and interest in the arts, and on correction of reading weaknesses by workshops devoted to reading. Methods and procedures used in conducting the evaluation follow. The program is considered to exceed the requirements of its stated objectives, particularly in terms of reading improvement scores. Several conclusions are drawn from the evaluation. Among them are that it is possible to effectively teach reading in a program focusing on the arts, and possible to enhance attitudes toward academic subjects, along with aspirations and self-concepts, through this program of instruction. A series of recommendations made include continuation and extension of program to a year-round five-day basis and the initiation of additional programs patterned on the present program. (Author/AM)

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AN EVALUATION OF THE 1972-1973

GUGGENHEIM MUSEUM CHILDREN'S PROGRAM

"LEARNING TO READ THROUGH THE ARTS"

ESEA TITLE I PROGRAM

An evaluation of a New York City School district educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (PL 89-10) performed under contract with the Board of Education of the City of New York for the 1972-1973 school year.

Professor Howard Conant
Evaluation Director

UD 015451

CENTER FOR EDUCATIONAL RESEARCH AND FIELD SERVICES
School of Education
New York University

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August 31, 1973

Dr. Anthony J. Polemeni
Director (Act.)
Bureau of Educational Research
BOARD OF EDUCATION
OF THE CITY OF NEW YORK
110 Livingston Street
Brooklyn, New York 11201

Dear Dr. Polemeni:

In fulfillment of the agreement dated March 21, 1973 between the New York City Public Schools and the Center for Educational Research and Field Services, I am pleased to submit three hundred copies of the final report, AN EVALUATION OF THE GUGGENHEIM MUSEUM CHILDREN'S PROGRAM: LEARNING TO READ THROUGH THE ARTS, 1972-1973.

The Bureau of Educational Research and the professional staff of the New York City Public Schools were most cooperative in providing data and facilitating the study in general. Although the objective of the team was to evaluate a project funded under ESEA Title I, this report goes beyond this goal. Explicit in this report are recommendations for modifications and improvement of the program. Consequently, this report will serve its purpose best if it is studied and discussed by all who are concerned with education in New York City -- the Board of Education, professional staff, students, parents, lay leaders, and other citizens. To this end, the study team is prepared to assist with the presentation and interpretation of its report. In addition, the study team looks forward to our continued affiliation with the New York City Public Schools.

You may be sure that New York University and its School of Education will maintain a continuing interest in the schools of New York City.

Respectfully submitted,

Arnold Spinner

ARNOLD SPINNER
Director

Executive Summary

The 1972-73 Guggenheim Museum Children's Program "Learning to Read through the Arts" represented the fourth in a series of full-time summer and part-time after-school academic year reading and arts instruction programs for socio-economically-deprived inner-city preadolescents. By 1972-73, the administrative, teaching, and supportive services staffs (augmented this year by a Parents' Advisory Council) had becomed seasoned and efficient, as well as highly dedicated. As a result, the 1972-73 program was smoothly operated and highly successful both in terms of meeting the objectives stated in the New York City Board of Education's research design and in the professional opinion of the evaluation staff headed by the writer of the report.

Approximately one hundred 10 to 12 year old children came two days each week (after school) and all day on Saturday for a period of approximately six months to classes in reading and the arts which were taught by deeply-committed young professional artists and reading specialists, importantly augmented by a core of para-professionals (including two deaf youngsters who worked out beautifully). Once a week they were treated to special events and field trips of a highly-stimulating professional nature. The analyses of instruments and procedures used in evaluating these classes and special events, contained herein, clearly indicates the success of this pioneering cultural and educational venture for inner-city youngsters.

Eight evaluation instruments --- aspiration scales, arts interest inventories, academic curriculum attitude questionnaires, and staff evaluation forms --- were created especially for the program, and were administered on a pre/post basis to all of the children. Statistically significant gains on all eight instruments are reported herein. In addition, the California Achievement Test (Reading) was administered to all children on a pre/post basis, and an exceptionally significant reading score gain of 8.4 months over a four-month chronological period was determined. By even the most conservative of standards, utilizing the figure of an 8.4 month reading score gain, it can clearly and unequivocally be stated (without even applying a special allowance formula for below-level readers) that an average gain of 4.3 months in the reading scores of participants can be attributed directly to the Guggenheim Museum Children's Program "Learning to Read through the Arts" 1972-73. These gains are, of course, particularly gratifying to leaders in the field of arts education who have long <u>felt</u> that reading and other academic subject competencies could be enhanced through programs of instruction in the arts, but who have until now not had persuasively hard data such as the statistically significant reading score gains cited in this report to <u>prove</u> that their hypotheses have been correct.

A problem encountered by the evaluation team, which had a direct bearing on the overall evaluation, was the fact that there was a delay between the time the program became operational and the time evaluation activities began. The program had been underway for two months before the evaluation contract was awarded. Considering that this program was

only of six months' duration and that the success of the program was to be determined by specified pre-post test gains in reading and art, it is unfortunate that this delay resulted in the postponement of pre-test procedures. Additionally, the evaluation design required the administering of nine different evaluation instruments, which became time-consuming and resulted in a reduction in the time which the team might otherwise have devoted to an overall professional evaluation of the program.

Without question, the Guggenheim Museum Children's Program "Learning to Read through the Arts" should be continued ... "recycled." It should, in fact, be greatly expanded in scope, as detailed in the following recommendations:

1. The Guggenheim Museum Children's Program should be continued as a year-round program of after-school, Saturday, and summer classes sponsored by the Guggenheim Museum and supported with city, state, federal, and private funds.

2. The Guggenheim Museum Children's Program should be emulated by other museums, by schools, and by other types of cultural and educational institutions throughout the world.

3. The program should be expanded into a five day per week venture during the academic year in order that as many as 300 children might be served. It would be possible to give two groups of 150 children each the excellent experiences in reading and the arts which until now only one group has enjoyed. Appropriate proportional additions should be made to the instructional staff, including the services of at least one more reading teacher.

4. Reading-oriented arts classes in ceramics, jewelry, leathercraft, woodcrafts, videotape (plus other aspects of the communication and printing arts), and a reading-oriented arts workshop for parents should be added.

5. Original works of art should be used more frequently and extensively as reference objects and inspiration sources in day-to-day classroom activities. They should be hung, placed, or otherwise shown or presented in each classroom as a normal part of an artistically-stimulating arts educational environment. Such works should, in this case, be borrowed from the Guggenheim Museum's collection, many examples of which are (like the collections of all museums) reposing unseen in storage.

6. Continued emphasis should be placed upon the importance of self-discovery in the solution of artistic problems. On the other hand, thoughtful and detailed professional instruction in the arts should be provided when needed and appropriate, and original works by professional artists should be readily available for inspiration and reference.

7. A greater variety and larger quantity of materials and equipment should be provided, possibly through stepped-up efforts to secure tax-deductible donations of materials and equipment from manufacturers, distributors, and retailers, as well as by a more generous initial budgetary allocation.

8. In making future decisions concerning the worthiness and particularly the per-pupil costs of this program, and of other programs of this type, the Board of Education and other fund-providing or fund-channeling agencies should give more attention to ultimate per-pupil cultural values, realizing that truly sig-

nificant learning experiences in the arts not only have lasting value for individual recipients but also for the larger society of which they will soom be actively-functioning citizen elements. The public funds saved in diverting even a few potential delinquent youngsters into productive and wholesome personal and social lives would more than pay for a year-long program of specialized instruction in reading and the arts for 300 children.

DESCRIPTION OF THE PROGRAM

The Guggenheim Museum Children's Program "Learning to Read through the Arts: 1972-73" was a comprehensive arts and reading enrichment program for one hundred socio-economically deprived 10 to 13 year old children from Title I-eligible public and private schools in New York City. The program ran for six months, from November to May, and consisted of thirteen special interest area classes in reading, theater, sculpture, printmaking, animated film, super-8 filmmaking, photography, mixed-media, painting, dance, music, puppetry, and the arts and cultures of the American people. The classes met after school on Tuesdays and Thursdays, from 3 to 6PM, and all day on Saturday from 9:30AM to 4:30PM. All children received specialized instruction in at least two arts workshops of their choice, as well as in reading, and they were, in addition, exposed to an exceptionally wide range of special cultural events and field trips pertaining to their arts and reading classes.

All classes were taught by young professional specialists in their various fields; however, these practicing artists and reading specialist were also required to possess demonstrated teaching abilities relevant to the age and ability levels of the child participants.

Because of the program's strong orientation toward reading improvement, the Reading Specialist, aided by the Reading Improvement Teacher, the teachers of arts workshop classes, a team of paraprofessionals (including two deaf youngsters whose handicap

actually became an advantage to the learning development of sympathetic children), and a Parents' Advisory Council, conceived, developed, and implemented a comprehensive and excellent reading program. The reading program was predicated upon the assumption that success in school is highly dependent upon reading ability, and that every effort should be made in the Guggenheim Museum Children's Program to contribute to the realization of this goal.

Through staff planning conferences, a number of reading activities were proposed which could be incorporated directly into the art workshops themselves. It was also felt that a Reading Improvement Teacher, working side by side with the arts specialists, could diagnose, individualize, teach, and evaluate reading skills through the arts by means of arts-oriented books and magazines as well as to reinforce reading experiences to which children would already have been exposed in the arts workshops.

It was decided that the arts would serve as the core of subject matter for independent as well as instructional reading (the instructional reading levels would be determined by the California Achievement Test in Reading, by informal textbook tests, and by means of individual diagnostic tools). It was felt (and subsequently found) that children's enthusiastic participation in the arts workshops would motivate them effectively to read for (a) pleasure, because of interest in and appreciation of new subject matter; (b) information, required to achieve success in the various arts workshops; (c) depth of historical background, because of constant exposure to various art forms; and (d) the satisfaction of their

intrinsic need to read in order to participate more effectively in such arts workshops as theater, super-8 filmmaking, film animation, and puppetry. Also, because of the many field trips and special artistic events in which the children were to participate, many new and exciting avenues of thought, insight, and interest were to be opened to them which had not been previously available. There were to be countless new things to talk about, to discuss, to experience deeply, to explore, to appreciate, and to want and need to read about.

The Reading Improvement Teacher organized the reading workshop according to the strengths and weaknesses of the reading skills of the individual children as determined by an item analysis of the CAT and other diagnostic tools. She grouped the children according to similar reading skill difficulties. Instruction was given in these small workshops to correct and improve the deficient reading skills of the individual children in that particular reading group. Where there was a multiple reading skill deficiency, children were placed in the group working on the most elemental skills in which they were weak. After the children succeeded in mastering deficiencies, they would move to the next sequential skill that needed improvement. In addition to the reading skill period, children attended on a regular basis one of the library reading periods in the reading workshop. During this period each child selected a book on the arts to read for interest, appreciation, and/or information. The Reading Improvement Teacher was available to answer questions, and to guide and record the child's needs. In order

not to interrupt the child's reading comprehension and interest, at this time, the particular skill weaknesses discovered during the library period were corrected and mastered in the child's reading skills period.

The teacher-artists, the Reading Improvement Teacher, and the Project Coordinator (Reading Specialist) met weekly to evaluate the progress being made by the individual children, to make the staff aware of each other's reading activities, and to incorporate additional or other reading techniques and skills in the arts workshops.

All the reading materials used in the program were planned to take on a different visual appearance than that which is usually found in an ordinary elementary school situation e.g. an oversized sketch book was used as a notebook. Among the reading materials used were children's reading books and books on the arts (fictional, informational), and children's reference books on the arts. The teacher-artists, student assistants, and Project Coordinator compiled a bibliography on three levels for each workshop:

1. children's independent reading level;
2. children's reference books in workshop area, augmented by teacher's reference books;
3. experience charts on the happenings in the Program such as: things children learn in the workshop, future events in the Program, field trip experiences, special events in the Museum auditorium;

4. Skill books;

5. Rexograph skill sheets;

6. Teacher-made materials;

7. Student-made materials;

8. Reading-oriented field trips to libraries, local as well as specialized, such as the Donnell and Lincoln Center libraries where children attended talks and presentations of books by librarians on art topics. Additional field trips to educational resource centers in museums and other cultural institutions were also taken.

In-service training in reading instruction consisting of one hour weekly seminars for artist-teachers were held by the Project Coordinator (Reading Specialist) and Reading Improvement Teacher. The workshop teachers were asked for comments, suggestions, and progress reports. The resulting data was evaluated for implementation and diagnosis by the Project Coordinator (Reading Specialist) and Reading Improvement Teacher. The Reading Improvement Teacher met weekly with the Project Coordinator (Reading Specialist) to develop suitable techniques, materials, and plans for each child in order to improve reading. The Project Coordinator kept a record of the lesson plans and techniques used in the Program.

Six Title I secondary school student aides assisted the teacher-artists in their workshops. Their duties consisted of helping the teacher in class movement from one place to another,

performances, exhibiting materials in workshop, keeping records, and relating with the community. All this extra help contributed greatly to the overall success of the reading program.

The reading program was explained to the parents in terms of their role in it. The parents were asked to care for the physical, emotional, and social needs of the child through a good home environment, and the development of a love for books. The parents became involved by visiting workshops, special events programs, performances, film festivals, and the final exhibition. A Parents' Advisory Council was formed, and it met regularly during the course of the program.

PROGRAM OBJECTIVES, WITH METHODS AND PROCEDURES FOLLOWED IN CONDUCTING EVALUATION

PROGRAM OBJECTIVES. The program is designed to foster and stimulate learning through the arts for children who are performing two years below grade level in reading and/or math. The participants will develop, through the arts, the skills needed to improve achievement levels. The program will focus on the improvement of reading and reading skills through motivation and interest in the arts, and correction of reading weaknesses in workshops devoted to reading. The program will also have arts workshops which will focus on academic areas also.

1. The children will improve in reading significantly on selected standardized reading tests.
2. To increase reading skills through creative arts activities.
3. To increase the students' interest in academic curricula areas.
4. To increase the aspirations levels, attitudes and sense of self-worth of the students.
5. To develop students' interest, knowledge, and skills in all the arts.
6. To increase motivation for cultural activities.

EVALUATION DESIGN OBJECTIVES, METHODS, AND PROCEDURES.

1. Objective: To determine if there is an improvement of two scaled points in aspirational levels, self-concept, and awareness of intellectual and creative abilities by 60% of the participants as measured by an attitudinal questionnaire to be completed by the students.

   Methods and Procedures: An attitude questionnaire will be developed by the evaluator which will have separate sections devoted to aspirational levels, self-concept, and awareness of abilities. Similar rating scales will be developed for use by the teaching staff. Teachers will be required to make ratings on a pre-post test basis to indicate the degree of change in the participants.

   Data Analysis: Frequency distributions of pre and post ratings will be made for both teacher and student ratings. The amount of change from pre to post will be calculated for each participant. The percentage of students who have an improvement of two or more scaled points will be determined to see if the objective was successfully achieved.

   Time Schedule: Pre-ratings will be made during the first three weeks of the program operation. Post-ratings will be made during the last three weeks of the program.

2. Objective: To determine if after participating in the program six months 60% of the students improve six months in reading as measured by the California Achievement Test (Reading).

   Methods and Procedures: All student participants will be

tested on a pre-post test basis with the appropriate level of the CAT (Alternate forms will be used). Raw scores will be converted to grade equivalents for each student.

In addition, the pre and post tests will be analyzed to determine if there are improvements in the areas of (a) word identification, (b) interpretation, (c) drawing inferences, (d) fluency and rate, etc. This will be basically a clinical evaluation of the areas considered important to reading success.

Data Analysis: A frequency distribution of pre and post test grade equivalent scores will be constructed. Differences between these grade equivalent scores will then be calculated. The percentage of cases showing improvement of two months or more will then be calculated. Further, a t-test for dependent means will be calculated to determine if the gain was statistically significant. The following plan of data analysis will be applied in addition to the one described in the proposal:

Step 1. Obtain each pupil's pretest grade equivalent.

Step 2. Subtract 1 (since most standardized tests start at 1.0).

Step 3. Divide the figure obtained in Step 2 by the number of months the pupil has been in school to obtain a hypothetical (historical regression) rate of growth per month. (Ignore Kindergarten months; 1 school year = 10 months).

Step 4. Multiply the number of months of Title I treatment by the historical rate of growth per month.

Step 5. Add the figure obtained in Step 4 to the pupil's pretest grade equivalent.

Step 6. Test the difference for significance between the group predicted posttest mean and the obtained posttest mean with a correlated t-test.

Time Schedule: The tests will be administered at the beginning and conclusion of the program.

3. Objective: To develop students' interest, knowledge, and skills in the arts. Specifically, the evaluators' and teachers' ratings will show that 60% of the students have gained 1.5 scaled points in one area of skill and one scaled point in interest in the arts. Questionnaire responses by students will show two scaled points of improvement in interest, knowledge, and skill in two areas.

Methods and Procedures: Students' skill and interest in program area will be rated by evaluators and teachers at the beginning and end of the program using a rating scale to be devised by the evaluator. A self report form for the students will also be developed by the evaluator.

Data Analysis: Ratings will be tallied and growth scores calculated. Appropriate summary tables will be prepared.

Time Schedule: Ratings will be completed during the first

and last week of the program.

4. Objective: To determine if as a result of the program 60% of the participants show an improvement of two scaled points in interest in academic curricular areas as measured by teacher and self ratings.

   Methods and Procedures: An attitude questionnaire will be developed by the evaluator to assess interest in academic curricular areas. Ratings will be completed on a pre-post rating basis by both students and teachers.

   Data Analysis: Frequency distributions of pre and post test ratings will be constructed for both teacher and student ratings. The amount of growth from pre to post will be determined to see if the objective was successfully achieved.

   Time Schedule: Pre-ratings will be made during the first three weeks of the program. Post ratings will be made during the last three weeks of the program.

5. Objective: To increase motivation for cultural activities. Specifically, attendance levels will be at 75% of the register.

   Methods and Procedures: Administrative records will be examined at the conclusion of the program.

   Data Analysis: Attendance tallies will be made by the evaluators who will also prepare summary tables

   Time Schedule: Records will be kept by program personnel throughout the program. The evaluators will examine the attendance records periodically throughout the program.

6. Objective: As part of a process evaluation, to determine if the program was implemented as proposed.

   Methods and Procedures: A scale will be developed which specifies job responsibilities of both professional and para-professionals as specified in the grant proposal. Trained observers will then observe the programs to determine if staff are functioning within the general intents of the proposal.

   Data Analysis: An analysis of observation and interview data in terms of frequency distribution.

   Time Schedule: Throughout the duration of the program.

IMPLEMENTATION OF THE EVALUATION DESIGN

THE EVALUATION OF OBJECTIVE 1. To determine if there was improvement of two scaled points in aspirational levels, self-concept, and awareness of intellectual and creative abilities by 60% of the participants as measured (a) by themselves and (b) by the teaching staff, evaluation forms A and B (See Appendices) were designed, printed, administered on a pre and post test basis, in January and in May, and statistically analyzed by the evaluator and his staff.

TABLE I

SUMMARY: Aspiration Level, Self-Concept, and Ability Awareness as Perceived by Participants Themselves (Form A)

Pre Program	Post Program
Mean = 7.58	Mean = 8.20
Standard Deviation = 1.53	Standard Deviation = 1.13
N = 55	N = 55

t (correlated) = 2.36*

*t significant at the .05 level

Analysis of Data in Table I (pertaining to Form A)

Table I is a summary of student evaluations of their aspiration level, self-concept, and ability awareness. Students were asked to rate these areas on a one to ten scale. Pre-program self-evaluations yielded a group mean of 7.58 as compared to a post-program mean of 8.20. A statistical comparison of the data using a correlated t-test yielded a t ratio of 2.36 which was significant at the .05 level. Sixty percent of the participants did improve two scaled points in aspiration levels, self-concept, and awareness of intellectual and creative abilities.

TABLE II

SUMMARY: Teachers' Perceptions of Pupils' Aspiration Levels, Self-Concepts, and Ability Awareness (Form B)

Pre Program	Post Program
Mean = 6.38	Mean = 8.17
Standard Deviation = 1.76	Standard Deviation = .99
N = 70	N = 70

t (correlated) = 7.31*

*t significant at the .01 level

Analysis of Data in Table II (pertaining to Form B)

In addition to having students evaluate themselves (Table I), teachers were asked to evaluate students' self-concept, ability, awareness, and aspiration. A ten point scale was used in this evaluation. The pre-program mean was equal to 6.38 as compared to a post-program average of 8.17. This 1.79 difference was significant at the .01 level (t correlated = 7.31). The objective was met since sixty percent of the participants did improve two scaled points in aspirational levels, self-concept, and awareness of intellectual and creative abilities as measured by the teaching staff.

THE EVALUATION OF OBJECTIVE 2. To determine if after participating in the program six months, 60% of the students improved six months in reading, the standardized California Achievement Test (Reading) was administered on a pre/post basis, under the direct supervision of the evaluator, to all of the children participating in the program. Alternate forms (A and B) of the CAT Level 3 (Reading) were administered at the beginning (actually, at the end of the second month, due to a delay on the part of the Board of Education in awarding the evaluation contract) and conclusion of the program. Due to severe reading retardation on the part of approximately 10% of the children, the Level 2 (Reading) test was used for these participants. It can be seen from the data reported below that Objective 2 was achieved. Participants tested on Level 3 of the California Achievement Test gained 8.4 months in reading; participants tested on Level 2 of the California Achievement Test gained 1.78 school years (based on a ten-month year) in reading.

TABLE III-A

SUMMARY: A Comparison of Pre, Predicted Post, and Actual Post Test Scores for Participants in the Guggenheim Project, on CAT Reading Level 3

Pre Program	Predicted Post Program	Actual Post Program
Mean = 3.97	Mean = 4.19	Mean = 4.81
Standard Deviation = 1.16	Standard Deviation = 1.80	Standard Deviation = 1.74
N = 60	N = 60	N = 60

t (correlated) = 5.33*

*t significant at the .01 level

Analysis of Data in Table III-A (pertaining to the California Achievement Test - Reading)

Student growth in reading was measured with the reading section of the California Achievement Test. At the inception of the program, the participants averaged a 3.97 grade equivalent reading score with a standard deviation of 1.16.

The pre program scores were used to obtain predicted post test data for the group. In order to obtain the predicted post test scores, an historical regression formula was applied to the data. The results of the historical regression formula yielded a predicted post test mean of 4.03 with a standard deviation of 1.80.

Actual post program results, however, were higher than the predicted post test scores. The post program mean was 4.81 with a standard deviation of 1.74. Thus, there was an .84 ten month academic year (or 8.4 months) increase in participants' reading scores from the inception of the program until its conclusion.

In addition to calculatory means and standard deviations, the pre and post program data was compared for statistical significance with a correlated t-test. The t ratio for the data was 5.33, and was, in fact, significant at the .01 level.

In addition to obtaining descriptive statistics for the pre and post test program scores, the evaluator thought it meaningful and important to obtain the reliabilities for each sub scale of the reading test (vocabulary and comprehension). Reliabilities were calculated using the Kuder Richardson 20 formula. A summary of these reliabilities are listed in Table III-B.

TABLE III-C

SUMMARY: Pre-Program Item Analysis of California Achievement Test Items related to Words in Context (Vocabulary)

Item No.	% of participants answering correctly	% distribution of responses 0	1	2	3	4
1	0.83	0.03	0.83	0.12	0.02	0.02
2	0.82	0.0	0.12	0.82	0.02	0.05
3	0.77	0.07	0.12	0.77	0.02	0.07
4	0.73	0.0	0.73	0.10	0.15	0.02
5	0.48	0.07	0.18	0.18	0.48	0.12
6	0.53	0.03	0.18	0.25	0.53	0.02
7	0.67	0.03	0.12	0.15	0.67	0.05
8	0.70	0.07	0.70	0.03	0.20	0.03
9	0.72	0.0	0.72	0.15	0.05	0.08
10	0.62	0.03	0.10	0.62	0.03	0.23
11	0.58	0.10	0.17	0.13	0.07	0.58
12	0.55	0.12	0.05	0.55	0.25	0.08
13	0.52	0.13	0.20	0.52	0.10	0.12
14	0.47	0.17	0.05	0.13	0.47	0.27
15	0.42	0.23	0.42	0.10	0.18	0.18
16	0.63	0.20	0.05	0.20	0.63	0.02
17	0.45	0.20	0.22	0.45	0.15	0.08
18	0.43	0.20	0.10	0.43	0.18	0.18
19	0.45	0.27	0.45	0.20	0.15	0.08
20	0.28	0.27	0.20	0.22	0.17	0.28
21	0.35	0.30	0.35	0.33	0.10	0.07
22	0.42	0.40	0.10	0.20	0.08	0.42
23	0.13	0.40	0.43	0.15	0.08	0.13
24	0.35	0.40	0.13	0.17	0.35	0.15
25	0.35	0.47	0.10	0.17	0.15	0.35
26	0.37	0.47	0.08	0.37	0.17	0.15
27	0.43	0.53	0.07	0.12	0.43	0.12
28	0.32	0.60	0.32	0.20	0.12	0.07
29	0.23	0.62	0.18	0.12	0.15	0.23
30	0.28	0.67	0.13	0.22	0.28	0.03
31	0.28	0.73	0.07	0.12	0.17	0.28
32	0.22	0.73	0.22	0.13	0.12	0.17
33	0.20	0.77	0.18	0.10	0.20	0.13
34	0.28	0.80	0.12	0.28	0.20	0.0
35	0.20	0.80	0.20	0.12	0.17	0.12
36	0.27	0.83	0.08	0.20	0.27	0.03
37	0.17	0.93	0.17	0.07	0.20	0.10
38	0.18	0.97	0.12	0.13	0.18	0.08
39	0.15	0.93	0.12	0.20	0.15	0.07
40	0.13	0.97	0.15	0.05	0.13	0.18

The comprehension subscale of the California Achievement Test is broken down into several areas. These include reference skills, interpretation, relationships, generalizations, and inferences. A breakdown of the item analysis for the comprehension part of the CAT is listed in Table III-D.

In reference to the subscale, 64.5% of the participants answered the questions related to reference skills correctly, 37.5% of the participants answered the question concerning interpretation correctly, and 20% of the participants answered the subscale relating to relationships correctly. Finally, the subscale concerning generalizations was answered correctly by 31.7% of the participants and 33.3% of the participants answered the questions referring to inference correctly.

Of forty questions on the post test vocabulary test over 50% of the program participants answered eighteen questions correctly. This was an increase of four questions or a 28% increase from pre test results. In addition over 40% of the participants answered twenty-seven questions correctly. This was a 29.6% increase from pre test results. An item analysis for the post test vocabulary section can be found in Table III-E.

As noted earlier the comprehension sub test of the California Achievement Test is broken down into several subscales (reference skills, interpretation, relationships, and inferences). A composite summary of the item analysis for the post program comprehension results may be found in Table III-F.

TABLE III-D

SUMMARY: Pre Program Item Analysis of California Achievement Test Items related to Reading Comprehension**

ITEM	% of participants answering correctly	% distribution of responses					
		0	1	2	3	4	5
1	0.87	0.07	0.03	0.0	0.87	0.07	0.0
2	0.82	0.03	0.03	0.82	0.13	0.0	0.0
3	0.58	0.30	0.08	0.58	0.12	0.07	0.0
4	0.70	0.07	0.05	0.12	0.70	0.10	0.0
5	0.48	0.17	0.12	0.23	0.08	0.48	0.0
6	0.42	0.10	0.42	0.08	0.17	0.28	0.0
7	0.68	0.10	0.68	0.05	0.10	0.12	0.0
8	0.43	0.13	0.17	0.43	0.17	0.17	0.0
9	0.40	0.13	0.40	0.17	0.17	0.20	0.0
10	0.45	0.13	0.10	0.22	0.45	0.17	0.0
11	0.45	0.20	0.10	0.17	0.45	0.18	0.0
12	0.40	0.10	0.15	0.40	0.33	0.07	0.0
13	0.33	0.20	0.07	0.30	0.33	0.20	0.0
14	0.48	0.13	0.15	0.15	0.48	0.15	0.0
15	0.38	0.17	0.15	0.38	0.20	0.18	0.0
16	0.45	0.17	0.17	0.45	0.25	0.05	0.0
17	0.40	0.10	0.17	0.23	0.40	0.15	0.0
18	0.25	0.20	0.13	0.27	0.25	0.25	0.0
29	0.27	0.17	0.27	0.30	0.17	0.18	0.0
20	0.18	0.20	0.18	0.28	0.25	0.18	0.0
21	0.20	0.27	0.05	0.28	0.33	0.20	0.0
22	0.13	0.23	0.22	0.20	0.22	0.13	0.0
23	0.28	0.17	0.25	0.27	0.28	0.12	0.0
24	0.35	0.10	0.35	0.37	0.17	0.07	0.0
25	0.42	0.17	0.15	0.42	0.25	0.10	0.0
26	0.32	0.23	0.15	0.23	0.18	0.32	0.0
27	0.32	0.20	0.13	0.23	0.32	0.22	0.0
28	0.23	0.20	0.30	0.32	0.05	0.23	0.0
29	0.23	0.20	0.23	0.23	0.22	0.22	0.0
30	0.15	0.27	0.13	0.32	0.27	0.15	0.0
31	0.27	0.27	0.15	0.33	0.27	0.12	0.0
32	0.22	0.33	0.22	0.22	0.27	0.13	0.0
33	0.25	0.23	0.32	0.25	0.25	0.07	0.0
34	0.32	0.30	0.07	0.32	0.25	0.22	0.0
35	0.32	0.33	0.17	0.18	0.32	0.05	0.12
36	0.25	0.20	0.25	0.15	0.18	0.25	0.07
37	0.42	0.23	0.08	0.25	0.42	0.07	0.07
38	0.08	0.17	0.13	0.17	0.27	0.15	0.20
39	0.22	0.23	0.22	0.27	0.18	0.12	0.10
40	0.25	0.20	0.18	0.27	0.12	0.25	0.08
41	0.22	0.20	0.18	0.25	0.22	0.13	0.12
42	0.18	0.20	0.22	0.18	0.17	0.18	0.15

**subscales

Reference Skills: 1-6
Interpretation: 3, 10, 12, 16, 17, 21, 24, 25, 27, 29, 35-38, 40
Relationships: 19, 20, 22, 32
Generalizations: 7, 11, 15, 23, 30, 31, 39, 41, 42
Inferences: 8, 13, 33, 34

TABLE III-E

SUMMARY: Post Program Analysis of California Achievement Test Items related to Word Context (Vocabulary)

ITEM	% of participants answering correctly	% distribution of responses 0	1	2	3	4
1	0.88	0.0	0.88	0.03	0.02	0.07
2	0.80	0.0	0.13	0.03	0.03	0.80
3	0.73	0.03	0.13	0.02	0.10	0.73
4	0.70	0.0	0.23	0.70	0.02	0.05
5	0.58	0.0	0.03	0.58	0.30	0.08
6	0.58	0.0	0.10	0.23	0.58	0.08
7	0.67	0.0	0.13	0.12	0.08	0.67
8	0.52	0.03	0.32	0.08	0.52	0.07
9	0.50	0.0	0.13	0.50	0.17	0.20
10	0.55	0.0	0.12	0.28	0.05	0.55
11	0.60	0.0	0.18	0.60	0.10	0.12
12	0.42	0.0	0.42	0.17	0.17	0.25
13	0.37	0.03	0.37	0.15	0.28	0.18
14	0.63	0.03	0.12	0.12	0.63	0.12
15	0.40	0.07	0.40	0.10	0.17	0.30
16	0.57	0.07	0.10	0.15	0.57	0.15
17	0.50	0.10	0.18	0.50	0.13	0.13
18	0.52	0.10	0.15	0.10	0.52	0.18
19	0.48	0.10	0.13	0.27	0.48	0.07
20	0.53	0.10	0.08	0.22	0.12	0.53
21	0.60	0.13	0.05	0.23	0.60	0.05
22	0.45	0.13	0.13	0.23	0.12	0.45
23	0.45	0.13	0.10	0.45	0.22	0.17
24	0.33	0.13	0.12	0.38	0.33	0.10
25	0.70	0.17	0.70	0.10	0.07	0.05
26	0.42	0.23	0.15	0.42	0.17	0.15
27	0.38	0.27	0.12	0.22	0.38	0.15
28	0.43	0.30	0.12	0.13	0.17	0.43
29	0.32	0.33	0.32	0.18	0.20	0.13
30	0.43	0.37	0.10	0.20	0.08	0.43
31	0.25	0.37	0.25	0.32	0.20	0.05
32	0.37	0.37	0.37	0.22	0.08	0.15
33	0.42	0.43	0.07	0.15	0.42	0.15
34	0.30	0.53	0.08	0.18	0.17	0.30
35	0.25	0.60	0.05	0.20	0.20	0.25
36	0.22	0.63	0.22	0.20	0.25	0.02
37	0.30	0.63	0.08	0.15	0.30	0.15
38	0.18	0.63	0.18	0.15	0.15	0.20
39	0.27	0.63	0.20	0.18	0.27	0.03
40	0.28	0.63	0.13	0.12	0.15	0.28

TABLE III-F

SUMMARY: Post Program Analysis of California Achievement Test Items related to Reading Comprehension**

ITEM	% of participants answering correctly	% distribution of responses					
		0	1	2	3	4	5
1	0.93	0.0	0.03	0.93	0.03	0.0	0.0
2	0.92	0.0	0.0	0.02	0.07	0.92	0.0
3	0.58	0.03	0.08	0.58	0.25	0.07	0.0
4	0.78	0.0	0.03	0.02	0.78	0.17	0.0
5	0.33	0.0	0.07	0.45	0.15	0.33	0.0
6	0.38	0.03	0.42	0.38	0.07	0.12	0.0
7	0.73	0.03	0.73	0.05	0.03	0.17	0.0
8	0.35	0.03	0.07	0.35	0.28	0.28	0.0
9	0.43	0.03	0.17	0.33	0.43	0.05	0.0
10	0.38	0.03	0.25	0.08	0.38	0.27	0.0
11	0.33	0.03	0.22	0.23	0.20	0.33	0.0
12	0.33	0.07	0.33	0.20	0.23	0.20	0.0
13	0.43	0.07	0.10	0.43	0.15	0.28	0.0
14	0.50	0.07	0.02	0.50	0.13	0.32	0.0
15	0.50	0.03	0.13	0.13	0.22	0.50	0.0
16	0.38	0.03	0.13	0.28	0.38	0.18	0.0
17	0.40	0.03	0.17	0.20	0.40	0.22	0.0
18	0.42	0.07	0.08	0.42	0.27	0.20	0.0
19	0.38	0.03	0.10	0.38	0.22	0.28	0.0
20	0.28	0.07	0.15	0.33	0.20	0.28	0.0
21	0.28	0.07	0.28	0.15	0.40	0.13	0.0
22	0.40	0.03	0.17	0.40	0.22	0.20	0.0
23	0.38	0.03	0.20	0.20	0.20	0.38	0.0
24	0.20	0.03	0.20	0.32	0.35	0.12	0.0
25	0.50	0.03	0.17	0.50	0.13	0.18	0.0
26	0.43	0.07	0.43	0.30	0.18	0.05	0.0
27	0.40	0.03	0.13	0.20	0.25	0.40	0.0
28	0.45	0.03	0.45	0.23	0.15	0.15	0.0
29	0.30	0.07	0.20	0.28	0.18	0.30	0.0
30	0.32	0.03	0.17	0.22	0.28	0.32	0.0
31	0.43	0.07	0.25	0.20	0.43	0.08	0.0
32	0.43	0.07	0.15	0.43	0.17	0.22	0.0
33	0.43	0.07	0.43	0.25	0.17	0.12	0.0
34	0.37	0.07	0.22	0.37	0.12	0.27	0.0
35	0.63	0.03	0.03	0.05	0.63	0.12	0.15
36	0.35	0.03	0.12	0.12	0.17	0.35	0.23
37	0.33	0.03	0.12	0.33	0.15	0.23	0.15
38	0.30	0.03	0.13	0.30	0.23	0.12	0.20
39	0.45	0.07	0.12	0.12	0.45	0.18	0.10
40	0.05	0.10	0.22	0.03	0.17	0.18	0.35
41	0.27	0.17	0.20	0.27	0.23	0.07	0.15
42	0.25	0.13	0.25	0.23	0.08	0.22	0.13

**subscales

Reference Skills: 1, 2, 4-6

Interpretation: 3, 4, 10, 16, 21, 26, 32, 35-37, 39-41

Generalizations: 7, 20, 22, 24, 28, 31

Relationships: 18, 34, 42

Inferences: 11-13, 15, 23, 29, 33, 38

On the reference skills subscale 65.3% of the participants answered the questions correctly. Furthermore, 37.7% of the participants answered the interpretation questions correctly, 34.6% of the participants answered the relationship subscale correctly, and 39.5% of the students answered the generalization subscale correctly. Finally, the inferences subscale was answered correctly by 31.5% of the participants.

TABLE III-G

SUMMARY: Pre and Post Program Reading Scores for California Achievement Test (Level 2) in Reading

Pre Program	Post Program
Mean = 1.90	Mean = 3.68
Standard Deviation = .42	Standard Deviation = .75
N = 5	N = 5

t (correlated) = 4.10*

*t significant at .01 level

A comparison of pre and post program reading scores on Level II of the California Achievement Test yielded a significant result (t correlated = 4.10). Reading scores went from 1.90 on the pre test to 3.68 on the post test. Thus, according to the comparison students gained an average of 1.78 school years (10 month year) while participating in the program. It is realized that the n is too small to be reliable but since the evaluation design necessitated the reporting of this data, the t- test was considered to be the best available method.

THE EVALUATION OF OBJECTIVE 3. To determine if (in the opinion of evaluators and teachers) 60% of the students gained 1.5 scaled points in one area of skill and one scaled point in interest in the arts, and to determine if students' questionnaire responses showed two scaled points of improvement in interest, knowledge, and two areas of skill, evaluation forms C and D (see Appendices) were designed, printed, administered on a pre and post test basis, and statistically analyzed by the evaluator and his staff.

TABLE IV

SUMMARY: Teacher Evaluation of Participants Art Interest, Art Knowledge, and Art Skills (Form C)

Pre Program	Post Program
Mean = 5.42	Mean = 7.76
Standard Deviation = 1.1	Standard Deviation = 1.1
N = 73	N = 73

t (correlated) = 9.34*

*t significant at the .01 level

Analysis of Data in Table IV (pertaining to Form C)

In addition to students rating themselves in the areas of art interest, art knowledge, and art skills, teachers evaluated these areas. Table IV is a summary of the teacher evaluations. The pre program mean was 5.42 as compared to 7.76 at the program conclusion. This difference between pre and post scores was tested for significance with a correlated t-test. The difference was in fact significant at the .01 level. In fact, 60 percent of the participants gained 15 scaled units in one skill area, one scaled point in art interest. Thus, the evaluation objective was met.

TABLE V

SUMMARY: Participants' Evaluation of Their Art Interest, Art Knowledge, and Art Skills (Form D)

Pre Program	Post Program
Mean = 5.82	Mean = 7.5
Standard Deviation = 1.12	Standard Deviation = 1.29
N = 46	N = 46

t (correlated) = 6.54*

*t significant at the .01 level

Analysis of Data in Table V (pertaining to Form D)

Program participants were asked to evaluate perceived art interest, art knowledge, and art skills on a ten point scale. The pre program evaluation had a group mean of 5.82 as compared to a post program mean of 7.5. The data was statistically analyzed for significance with a correlated t-test. The t ratio was equal to 6.54, and was in fact significant at the .01 level. Sixty percent of the participants showed 2 scaled points of improvement in art interest, art knowledge, and art skills. The objective was achieved.

THE EVALUATION OF OBJECTIVE 4. To determine if, as a result of the program, 60% of the participants showed an improvement of two scaled points in interest in academic curricular areas as measured by teachers and by participants themselves, evaluation forms E and F, reproduced below, were designed, printed, administered on a pre and post-test basis, and statistically analyzed by the evaluator and his staff.

TABLE VI

SUMMARY: Teachers' Evaluations of Academic Curriculum Attitudes of the Participants (Form E)

Pre Program	Post Program
Mean = 5.66	Mean = 7.21
Standard Deviation = 1.75	Standard Deviation = 1.25
N = 59	N = 59

t (correlated) = 5.44*

*t significant at .01 level

Analysis of Data in Table VI (pertaining to Form E)

In addition to asking participants to rate the curriculum teachers were requested to rate the curriculum and attitudes of the participants to the curriculum. The pre evaluation mean was 5.66 compared to a post evaluation mean of 7.21. The differences between the pre and post scores was tested for significance with a correlated t-test. In fact, the results were significant at the .01 level. The evaluation objective that 60 percent of the participants show an improvement of two scaled points in interest in academic curricula areas as measured by teacher and self-rating was achieved.

TABLE VII

SUMMARY: Participants' Self-Evaluation of Academic Curriculum Attitudes (Form F)

Pre Program	Post Program
Mean = 7.78	Mean = 7.44
Standard Deviation = 1.57	Standard Deviation = 1.97
N = 52	N = 52

t (correlated) = 0.94*

*t not significant

Analysis of Data in Table VII (pertaining to Form F)

Participants in the program were asked to evaluate their feelings toward the academic curriculum and their attitudes towards the general program. At the inception of the program it was rated 7.78 on a ten point scale. At the conclusion of the program the program was rated 7.44. These results were compared for statistical significance. In fact, the correlated t was equal to 0.94 and was not significant. Sixty percent of the participants did not improve 2 scaled points, and therefore the evaluation objective was not achieved during the program.

THE EVALUATION OF OBJECTIVE 5. To determine if motivation for cultural activities was increased, as reflected in 75% or higher attendance levels, administrative records were examined periodically throughout, and at the end of the program. Attendance averaged between 80% and 85%; hence, in the judgment of the evaluator, objective 5 was amply realized.

THE EVALUATION OF OBJECTIVE 6. To determine if the program was implemented as proposed, in terms of the functions of professional and paraprofessional staff members, evaluation forms G and H, reproduced below, were designed, printed, administered on a pre and post test basis, and statistically analyzed by the evaluator and his staff. In addition, trained observers visited each of the thirteen arts and reading classes at least twice, interviewed staff members to determine the degree of their understanding of program objectives and the implementation of the program's philosophy, accompanied children and staff members on several field trips and several events, and made observations (augmented with written notes) of the functions of all professional and paraprofessional staff members. In the professional opinion of the evaluator, all staff members, both professional and paraprofessional, were functioning very effectively within the general intents of the proposal, and in a number of cases their contributions to child participants' learning experiences in the arts and reading (plus other subject areas and, most importantly, in overall personality development)

went far beyond the normal "call of duty", and well beyond the program's specified objectives. For example, one arts teacher invited the children in her class to an after-class "bake-in" at her nearby apartment where children excitedly (and no doubt lastingly) learned the art of home-made bread-making "from scratch", sifting flour, kneading dough, and waiting with their friendly teacher for the finished product to be removed from the oven and tasted.

TABLE VIII

SUMMARY: Professional Staff Evaluation (Form G)

Pre Program	Post Program
Mean = 8.76	Mean = 9.50
Standard Deviation = .50	Standard Deviation = .50
N = 28	N = 28

t = 5.24*

*t significant at .01 level

Analysis of Data in Table VIII (pertaining to Form G)

The professional staff of the program was evaluated by the project director and the program's administrators prior to the implementation of the program on the assumption that a contract would be received shortly. The professional staff average a rating of 8.76 on a ten point scale prior to the program. During the program, the staff received supervision about their performance and effectiveness on the job. The staff was reevaluated at the termination of the program and received a 9.50 rating on a ten point scale. Ratings were compared for statistical significance between pre and post program ratings. In fact, there was a significant difference, t = 5.24 (significant at the .01 level).

TABLE IX

SUMMARY: Paraprofessional Staff Evaluation (Form H)

Pre Program	Post Program
Mean = 8.65	Mean = 9.05
Standard Deviation = .59	Standard Deviation = .36
N = 28	N = 28

t = 3.89*

*t significant at .01 level

Analysis of Data in Table IX (pertaining to Form H)

In addition to evaluating the professional staff, paraprofessionals were also evaluated by the project director and the program's administrative staff. Before the inception of the evaluation the paraprofessional staff rated 8.65 on a ten point scale. At the termination of the program, however, the paraprofessional staff was reevaluated, and averaged a rating of 9.05 on a ten point scale. Pre and post program evaluation ratings were compared for statistical significance with a t-test. The comparison was statistically significant at the .01 level (t = 3.89).

EVALUATION SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary. In the professional opinion of the evaluator, The Guggenheim Museum Children's Program: Learning to Read through the Arts, 1972-73 was a highly successful educational venture. The program exceeded the requirements of its stated objectives, particularly in terms of reading improvement scores (shown to be significant at the .01 level) which offer a strong endorsement to the hypothesis that it is possible to teach children to read through the arts. In this respect, particularly, the Guggenheim Program serves very importantly as a very desirable replicable model, not only in terms of its own continuation and, hopefully, expansion, but also in terms of its being emulated by other museums, by public and private schools, by summer camps, and by a wide variety of formal and informal arts enrichment programs. It should be pointed out most clearly, however, that though the Guggenheim Museum Children's Program: Learning to Read through the Arts was reading-oriented, it was first and foremost an arts program. The hundred or so children in this program not only grew remarkably in terms of their ability to read, they learned to express themselves creatively and significantly in at least two of the arts as well. The animated films, paintings, scrulptures, silkscreen prints, dances, musical compositions, dramatic parts, photographs, motion pictures, puppets, craft objects, and mixed media works they created

(and later performed or exhibited), were clearly worthy of artistic note and are felt by the evaluator to be directly reflective of the value of utilizing the services of carefully selected professional artists as teachers.

Conclusions. A number of conclusions may be drawn from a study of this evaluation report. Among them are the following:

1. It is possible to effectively teach reading in a program of instruction primarily focused upon the arts.
2. Professional artists can effectively be used as instructors in an educational program for children.
3. The arts and reading appear to be mutually-enhancing components of an enrichment program for inner-city children.
4. Attitudes toward academic curriculum subjects in general can be enhanced through an arts and reading enrichment program.
5. Children's aspirations and self-concepts, and an improved awareness of their intellectual and creative abilities, can be enhanced through a successfully administered program of instruction which is oriented primarily toward the arts and reading.
6. Children's overall cultural awareness and knowledge of the arts can be significantly enhanced through a well-organized program involving frequent and regular input experiences in legitimate theater and gallery-going,

library and museum visiting, orchestral and dance performances, and other professional-level events.

Recommendations.

1. The Guggenheim Museum Children's Program should be continued as a year-round program of after-school, Saturday, and summer classes sponsored by the Guggenheim Museum and supported with city, state, federal, and private funds.

2. The Guggenheim Museum Children's Program should be emulated by other museums, by schools, and by other types of cultural and educational institutions throughout the world.

3. The program should be expanded into a five day per week venture during the academic year in order that as many as 300 children might be served. It would be possible to give two groups of 150 children each the excellent experiences in reading and the arts which until now only one group has enjoyed. Appropriate proportional additions should be made to the instructional staff, including the services of at least one more reading teacher.

4. Reading-oriented arts classes in ceramics, jewelry, leathercraft, woodcrafts, videotape (plus other aspects of the communication and printing arts), and a reading-oriented arts workshop for parents should be added.

5. Original works of art should be used more frequently and extensively as reference objects and inspiration sources in day-to-day classroom activities. They should be hung, placed, or otherwise shown or presented in each classroom as a normal part of an

artistically-stimulating arts educational environment. Such works should, in this case, be borrowed from the Guggenheim Museum's collection, many examples of which are (like the collections of all museums) reposing unseen in storage.

6. Continued emphasis should be placed upon the importance of self-discovery in the solution of artistic problems. On the other hand, thoughtful and detailed professional instruction in the arts should be provided when needed and appropriate, and original works by professional artists should be readily available for inspiration and reference.

7. A greater variety and larger quantity of materials and equipment should be provided, possibly through stepped-up efforts to secure tax-deductible donations of materials and equipment from manufacturers, distributors, and retailers, as well as by a more generous initial budgetary allocation.

8. In making future decisions concerning the worthiness and particularly the per-pupil costs of this program, and of other programs of this type, the Board of Education and other fund-providing or fund-channeling agencies should give more attention to ultimate per-pupil cultural values, realizing that truly significant learning experiences in the arts not only have lasting value for individual recipients but also for the larger society of which they will soon be actively-functioning citizen elements. The public funds saved in diverting even a few potential deliquent youngsters into productive and wholesome personal and social lives would more than pay for a year-long program of specialized

instruction in reading and the arts for 300 children.

APPENDICES

FORM A: ASPIRATION LEVEL, SELF-CONCEPT, AND ABILITY AWARENESS QUESTIONNAIRE FOR PARTICIPANTS IN THE GUGGENHEIM MUSEUM CHILDREN'S PROGRAM, 1972-73

Designed by Dr. Howard Conant, New York University, Evaluator

DIRECTIONS: Using the following 10 point scale, rate yourself on all items. Circle one number after each item.

	NEVER		SELDOM			SOMETIMES		OFTEN		ALWAYS
I want to do good work in school	1	2	3	4	5	6	7	8	9	10
I want to become a successful adult	1	2	3	4	5	6	7	8	9	10
I want to be well liked	1	2	3	4	5	6	7	8	9	10
I think I am a nice person	1	2	3	4	5	6	7	8	9	10
I think most children like me	1	2	3	4	5	6	7	8	9	10
I think most adults like me	1	2	3	4	5	6	7	8	9	10
I am an intelligent person	1	2	3	4	5	6	7	8	9	10
I am a good reader	1	2	3	4	5	6	7	8	9	10
I am a good artist	1	2	3	4	5	6	7	8	9	10
I am a good dancer	1	2	3	4	5	6	7	8	9	10
I am a good musician	1	2	3	4	5	6	7	8	9	10

FORM B: TEACHER'S EVALUATION OF ASPIRATION LEVELS, SELF-CONCEPTS, AND ABILITY AWARENESS OF PARTICIPANTS IN THE GUGGENHEIM MUSEUM CHILDREN'S PROGRAM, 1972-73

Designed by Dr. Howard Conant, New York University, Evaluator

DIRECTIONS: Using the following 10 point scale, rate the above-named child on all items. Circle one number after each item.

	NEVER		SELDOM		SOMETIMES		OFTEN		ALWAYS	
Wants to do good work in school	1	2	3	4	5	6	7	8	9	10
Wants to become a successful adult	1	2	3	4	5	6	7	8	9	10
Wants to be well-liked	1	2	3	4	5	6	7	8	9	10
Thinks he is a nice person	1	2	3	4	5	6	7	8	9	10
Thinks most children like him	1	2	3	4	5	6	7	8	9	10
Thinks most adults like him	1	2	3	4	5	6	7	8	9	10
Considers himself an intelligent person	1	2	3	4	5	6	7	8	9	10
Considers himself a good reader	1	2	3	4	5	6	7	8	9	10
Considers himself a good artist	1	2	3	4	5	6	7	8	9	10
Considers himself a good dancer	1	2	3	4	5	6	7	8	9	10
Considers himself a good musician	1	2	3	4	5	6	7	8	9	10

FORM C: TEACHER'S EVALUATION OF ARTS INTEREST, KNOWLEDGE, AND SKILL OF PARTICIPANTS IN THE GUGGENHEIM MUSEUM CHILDREN'S PROGRAM, 1972-73.

Designed by Dr. Howard Conant, New York University, Evaluator

DIRECTIONS: Using the following 10 point scale, rate the above-named child on all items. Circle one number after each item.

	NEVER		SELDOM		SOMETIMES		OFTEN		ALWAYS	
Child is interested in:										
drawing	1	2	3	4	5	6	7	8	9	10
painting	1	2	3	4	5	6	7	8	9	10
sculpture	1	2	3	4	5	6	7	8	9	10
mixed media	1	2	3	4	5	6	7	8	9	10
music	1	2	3	4	5	6	7	8	9	10
dance	1	2	3	4	5	6	7	8	9	10
photography	1	2	3	4	5	6	7	8	9	10
Super-8 filmmaking	1	2	3	4	5	6	7	8	9	10
theater	1	2	3	4	5	6	7	8	9	10
puppetry	1	2	3	4	5	6	7	8	9	10
printmaking	1	2	3	4	5	6	7	8	9	10

FORM C (Cont'd.)

	NEVER		SELDOM		SOMETIMES		OFTEN		ALWAYS	
Child knows a lot about at least two of the art areas listed above.	1	2	3	4	5	6	7	8	9	10
Child can name at least two professional artists or performing groups.	1	2	3	4	5	6	7	8	9	10
Child can tell the difference between art and ordinary things	1	2	3	4	5	6	7	8	9	10
Child is skillful in performing or producing work in at least two of the arts areas listed above.	1	2	3	4	5	6	7	8	9	10
Child can make or perform a work of art as well as a professional artist does.	1	2	3	4	5	6	7	8	9	10
Child knows how to begin creating or performing a work of art.	1	2	3	4	5	6	7	8	9	10
Child can finish creating or performing a work of art after someone has shown him how to begin.	1	2	3	4	5	6	7	8	9	10
Child knows enough about creating or performing art to be able to teach other people how to do it.	1	2	3	4	5	6	7	8	9	10

FORM D: ARTS INTEREST, KNOWLEDGE, AND SKILL EVALUATION SCALE FOR PARTICIPANTS IN THE GUGGENHEIM MUSEUM CHILDREN'S PROGRAM, 1972-73.

Designed by Dr. Howard Conant, New York University

DIRECTIONS: Using the following 10 point scale, rate yourself on all items. Circle one number after each item.

	NEVER		SELDOM		SOMETIMES		OFTEN		ALWAYS	
I am interested in:										
drawing	1	2	3	4	5	6	7	8	9	10
painting	1	2	3	4	5	6	7	8	9	10
sculpture	1	2	3	4	5	6	7	8	9	10
mixed media	1	2	3	4	5	6	7	8	9	10
music	1	2	3	4	5	6	7	8	9	10
dance	1	2	3	4	5	6	7	8	9	10
photography	1	2	3	4	5	6	7	8	9	10
Super-8 filmmaking	1	2	3	4	5	6	7	8	9	10
film animation	1	2	3	4	5	6	7	8	9	10
theater	1	2	3	4	5	6	7	8	9	10
puppetry	1	2	3	4	5	6	7	8	9	10
crafts	1	2	3	4	5	6	7	8	9	10
printmaking	1	2	3	4	5	6	7	8	9	10
I know a lot about at least two of the arts areas listed above.	1	2	3	4	5	6	7	8	9	10
I can name at least two professional artists or performing groups.	1	2	3	4	5	6	7	8	9	10
I can tell the difference between art and ordinary things.	1	2	3	4	5	6	7	8	9	10
I am skillful in performing or producing work in at least two of the arts areas listed above.	1	2	3	4	5	6	7	8	9	10
I can make or perform a work of art as well as a professional artist does.	1	2	3	4	5	6	7	8	9	10
I know how to begin creating or performing a work of art.	1	2	3	4	5	6	7	8	9	10
I can finish creating or performing a work of art after someone has shown me how to begin.	1	2	3	4	5	6	7	8	9	10
I know enough about creating or performing art to be able to teach other people how to do it.	1	2	3	4	5	6	7	8	9	10

FORM E: TEACHER'S EVALUATION OF ACADEMIC CURRICULUM ATTITUDES OF PARTICIPANTS IN THE GUGGENHEIM MUSEUM CHILDREN'S PROGRAM, 1972-73.

Designed by Dr. Howard Conant, New York University, Evaluator.

DIRECTIONS: Using the following 10 point scale, rate the above-named child on all items. Circle one number after each item.

	NEVER		SELDOM		SOMETIMES		OFTEN			ALWAYS
Child likes school.	1	2	3	4	5	6	7	8	9	10
Child likes reading.	1	2	3	4	5	6	7	8	9	10
Child likes arithmetic.	1	2	3	4	5	6	7	8	9	10
Child likes science.	1	2	3	4	5	6	7	8	9	10
Child likes social studies.	1	2	3	4	5	6	7	8	9	10

FORM F: ACADEMIC CURRICULUM ATTITUDE QUESTIONNAIRE FOR PARTICIPANTS IN THE GUGGENHEIM MUSEUM CHILDREN'S PROGRAM, 1972-73.

Designed by Dr. Howard Conant, New York University, Evaluator

DIRECTIONS: Using the following 10 point scale, rate yourself on all items. Circle one number after each item.

	NEVER		SELDOM		SOMETIMES		OFTEN		ALWAYS	
I like school.	1	2	3	4	5	6	7	8	9	10
I like reading.	1	2	3	4	5	6	7	8	9	10
I like arithmetic.	1	2	3	4	5	6	7	8	9	10
I like science.	1	2	3	4	5	6	7	8	9	10
I like social studies.	1	2	3	4	5	6	7	8	9	10

FORM G: PROFESSIONAL STAFF JOB RESPONSIBILITY EVALUATION SCALE
GUGGENHEIM MUSEUM CHILDREN'S PROGRAM, 1972-73.

Designed by Dr. Howard Conant, New York University, Evaluator

NEVER		SELDOM		SOMETIMES		USUALLY		ALWAYS	
1	2	3	4	5	6	7	8	9	10

Provides competent instruction _____
Has good rapport with children _____
Encourages children to help teach _____
Demonstrates complicated processes _____
Explains things well _____
Speaks clearly and effectively _____
Handles disciplinary problems well _____
Effectively makes use of student assistants _____
Plans and orders supplies _____
Makes good use of audio-visual materials in art and reading _____
Evaluates and records progress in reading activities _____
Evaluates and records progress in art skills _____
Takes attendance regularly _____
Supervises snacks effectively _____
Submits reports promptly and neatly _____
Effective cleanup procedures _____
Takes proper care of materials _____
Cooperates with Reading Improvement Teacher _____
Cooperates with Reading Specialist _____
Works well with Program directors _____
Attends staff meetings regularly _____
Attends workshops regularly _____
Responsible for children's well-being on field trips and special events _____
Suggests field trips _____
Expresses an over-all interest in Program operations _____
Offers learning experiences for student assistants _____

FORM H: PARAPROFESSIONAL STAFF JOB RESPONSIBILITY EVALUATION SCALE
GUGGENHEIM MUSEUM CHILDREN'S PROGRAM, 1972-73.

Designed by Dr. Howard Conant, New York University, Evaluator

NEVER		SELDOM		SOMETIMES		USUALLY		ALWAYS	
1	2	3	4	5	6	7	8	9	10

Is able to assume full responsibility for workshop when teacher leaves room _____
Cooperates with Teacher-Artists _____
Cooperates with Reading Improvement Teacher _____
Cooperates with Reading Specialist _____
Cooperates with Program directors _____
Handles telephone calls efficiently and courteously _____
Willingly runs errands _____
Takes attendance effectively _____
Distributes snacks properly _____
Prepares materials effectively _____
Good cleanup procedures _____
Attends assistants' meetings regularly _____
Attends workshops regularly _____
Assists teachers during field trips and special events _____
Walks children to subways _____
Is courteous to visitors _____
Encourages children to participate in activities _____
Personality well-suited to this type of work _____
Industrious and diligent _____
Shows good promise of future vocational success _____
Shows good promise of possible professional career _____